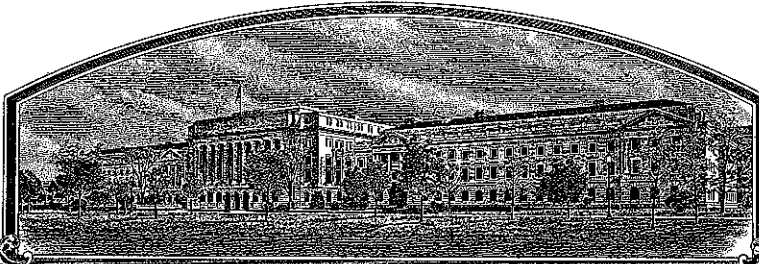


No.

200200113



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Progeny Advanced Genetics, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED IN THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

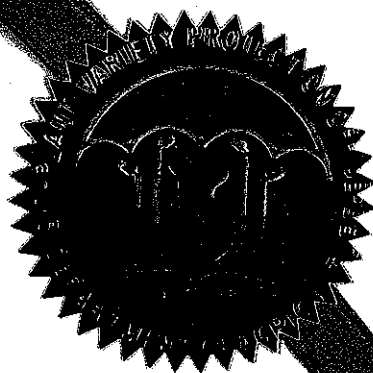
'Gorilla'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of August, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



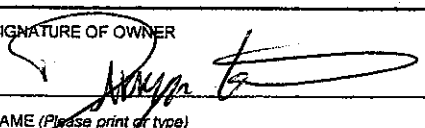
U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

PAD 3/31/02

1. NAME OF OWNER PROGENY ADVANCED GENETICS, INC.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME		3. VARIETY NAME Gorilla	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 1536 B MOFFETT ST SALINAS CA 93905-3342		5. TELEPHONE (include area code) 831-751-6030		FOR OFFICIAL USE ONLY PVPO NUMBER 200200113	
6. FAX (include area code) 831-751-6032		8. IF INCORPORATED, GIVE STATE OF INCORPORATION CALIFORNIA		FILING DATE March 11, 2002	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) CORPORATION		9. DATE OF INCORPORATION 12/26/94		FILING AND EXAMINATION FEES: \$ 2705 DATE 3/11/2002 CERTIFICATION FEE: \$ 768- DATE 5/23/2006	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) DARRYN GIBSON MANAGER OF RESEARCH AND DEVELOPMENT PROGENY ADVANCED GENETICS, INC 1536 B MOFFETT ST SALINAS CALIFORNIA 93905				FILING AND EXAMINATION FEES: \$ 2705 DATE 3/11/2002 CERTIFICATION FEE: \$ 768- DATE 5/23/2006	
11. TELEPHONE (include area code) 831-751-6030		12. FAX (include area code) 831-751-6032		13. E-MAIL DMAN@I PROGENY.COM	
14. CROP KIND (Common Name) LETTUCE		15. GENUS AND SPECIES NAME OF CROP LACTUCA SATIVA		16. FAMILY NAME (Botanical) COMPOSITAE	
17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)	
20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1,2,3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)		22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)	
23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.		25. SIGNATURE OF OWNER  NAME (Please print or type) DARRYN GIBSON	
CAPACITY OR TITLE MANAGER OF RESEARCH AND DEVELOPMENT		DATE 3/5/02		CAPACITY OR TITLE 1	

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

200200713

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

MARCH 16, 2001 U.S.A

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705.

Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed/lsg-sd.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

Exhibit A**Details of the Development of the Variety Gorilla**

Guzmaine
RAO
3/28/06

Gorilla is a romaine lettuce variety developed from a hand pollinated cross Green Towers and Tall Guzman made in 1993 in the San Joaquin Valley. The F1 seed harvested was designated as Gamma # 044. Green Towers, a PIC type available from Harris Moran Seed Co. was selected as a source of size, type and vigorous growth habit. Tall Guzman a publicly available variety released by the USDA was the source of corky root resistance, weight and heat tolerance. The cross was made, and by using the pedigree selection breeding method, we developed a dark green, tall, slow bolting corky root resistant Romaine variety with improved size and weight for plantings in all lettuce production regions of the western United States.

Approximately 40 plants of the F1 seed were planted in a San Joaquin Valley production field for seed increase in 1995. The block was rogued, eliminating the self-pollinating plants. Individual plant selections were made, black seeded plants were harvested separately and individually. The F2 seed was harvested in August 1995.

The F2 seed was evaluated in research and development plot trials in late 1995 and 1996 and designated as PX 315. The seed was then increased in 1996 in a San Joaquin Valley research production block. The block was intensely rogued at the market stage, and individual plants were selected for improved size, color and late maturity. Selected plants were harvested individually and the remainder of the plants were harvested in bulk for trial purposes to produce the F3 seed.

The F3 seed was trialed throughout the years 1996 and 1997 growing seasons in Yuma, Arizona and the Salinas Valley of California. The F3 seed was then again increased in our 1997 SJV research production block. Selections for large size, dark green color and heat resistance were made and the plants were grown to seed. The remainder of the block was rogued for type size and maturity and bulk harvested for F4 trial seed.

The F4 seed was evaluated in research and development plot trials during the 1998 growing season in the Salinas Valley of California, where it exhibited corky root resistance and improved size and weight.

During the year 1999 growing seasons, we continued to extensively trial the F4 seed in Yuma Arizona and the Salinas Valley of California. This variety was noted to exhibit the desired phenotypic traits but lacked uniformity. The F4 seed was planted in 1999 in our San Joaquin Valley research production field, where it was selectively rogued for uniformity in size and color. The variety segregated, for maturity, early and late maturing plants were harvested separately producing different 3 different lines of the F5 seed. The earliest maturing line was designated as PX 404 on January 10, 2000.

PX 404 was Extensively trialed through out the Salinas Valley in 2000 demonstrating good uniformity in terms of size, type and maturity. The F5 seed was then increased in our 2000 San Joaquin Valley commercial production field. The variety was noted as uniform and stable without variants. The F6 seed was harvested in the fall of 2000. The variety was named 'Gorilla' on October 27, 2000.

The F5 seed was noted in commercial trials and the seed production field to be uniform and stable with out variants.

Gorilla was first sold on March 16, 2001, no harvested material of the variety Gorilla was sold or offered for sale prior to this date.

4

Exhibit B
Statement of Distinctness

Gorilla is a distinct variety of romaine lettuce for conventional, heart, or commodity production programs. Gorilla is ideally suited for transition period plantings where corky root is a problem with typical Parris Island Cos types, and size an issue for the corky root resistant Florida types. Though the variety can be planted for bulk or box harvest, it's upright compact growth habit, combined with its dense, tall heart and narrow pointed butt, make it an ideal choice for the production of romaine hearts. It's resistance to corky root make it an exceptional variety for spring plantings in the Salinas Valley, while its ability to maintain color during the winter freezes offers advantages in the Yuma production region.

Gorilla is an intermediate type romaine lettuce, derived from Florida and PIC parentage that most closely resembles Tall ~~Guzman~~. The leaf surface of Gorilla is moderately blistered, more so than a typical PIC type, such as Green Towers, and less so than a typical Florida type such as Tall Guzman or King Henry. *Guzmaine*

As shown in the following tables, Gorilla is statistically different from its commercially available parent varieties. When compared to Green Towers, Gorilla has a more heavily savoyed leaf surface, a shorter and more upright/compact growth habit and a better resistance to the symptoms associated with corky root rot. The seed color also distinguishes Gorilla from Green Towers, the seed of Gorilla is black, where as the seed of Green Towers is white. Additional distinctions between Gorilla and Green Towers as cited in their Respective Exhibit C documentation includes:

RAD
3/29/06

<u>Characteristic</u>	<u>Gorilla</u>	<u>Green Towers</u>
Cotyledon Shape	Broad	Intermediate
Cotyledon Leaf Shape	Oval	Elongated
4 th Leaf Reflexing	Lateral margin	None
Mature Leaf Incision Depth	Moderate	Deep
Mature Leaf Indentation	Crenate	Deeply dentate
Margin Undulation	Moderate	Strong

When compared to Tall Guzman, Gorilla is taller, earlier maturing as indicated by the measured core lengths, has a smoother, less savoyed leaf surface, and a longer heart.

Characteristic:	Gorilla	Tall Guzmaine
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4th leaf stage:

Green color	Dark	Medium
Rolling	Absent	Present
Cupping	Uncupped	Slight
Reflexing	Lateral Margin	None

Mature leaf:

Glossyness	Moderate	Dull
Blistering	Moderate	Strong

Bolter Leaf:

Color	Medium	Dark
-------	--------	------

Bolter Habit:

Terminal Inflorescence	Absent	Present
Lateral Shoots	Absent	Present
Basal Shoots	Absent	Present

Physiological Stress:

Tip Burn	Tolerant	Resistant
Heat	Intermediate	Resistant
Cold	Susceptible	Moderate.

Please include these distinctions in the Exhibit B.

U. S. Department of Agriculture
Agricultural Marketing Service
Science and Technology Program

OBJECTIVE DESCRIPTION OF VARIETY
LETTUCE *Lactuca sativa*

Exhibit C

NAME OF APPLICANT (S) PROGENY ADVANCED GENETICS, INC.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) 1536 B MOFFETT STREET SALINAS CALIFORNIA 93905	PVPO NUMBER 200200113
	VARIETY NAME
	EXPERIMENTAL DESIGNATION

Place numbers in the boxes for the characters which best describe this variety. Measured data should be the mean of an appropriate number (at least 10) of spaced plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

The location of the test area is: **SALINAS VALLEY CA. & YUMA AZ.** Color System Used: **MUNSELL COLOR CHART**

1. PLANT TYPE: (See list of suggested check varieties page 4.)

<input type="checkbox"/> 01-Cutting/Leaf	<input type="checkbox"/> 05-Great Lakes Group	<input type="checkbox"/> 09-Stem
<input type="checkbox"/> 02-Butterhead	<input type="checkbox"/> 06-Vanguard Group	<input type="checkbox"/> 10-Latin
<input type="checkbox"/> 03-Bibb	<input type="checkbox"/> 07-Imperial Group	<input type="checkbox"/> 11-OTHER
<input type="checkbox"/> 04-Cos or Romaine	<input type="checkbox"/> 08-Eastern (Ithaca) Group	

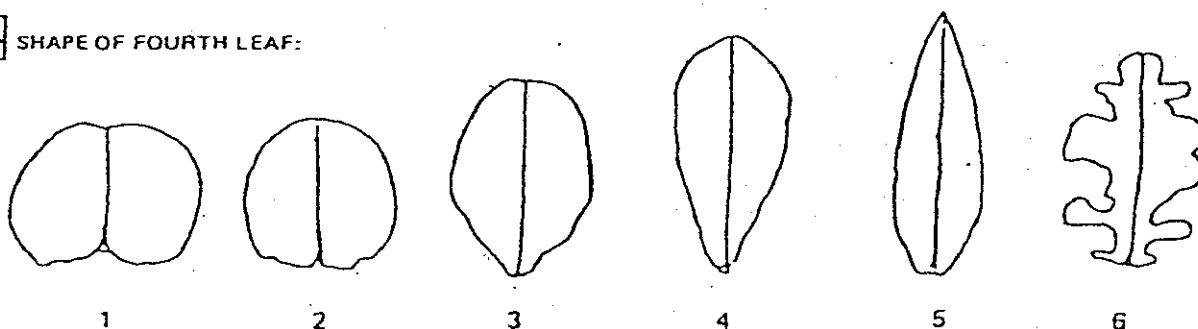
2. SEED: COLOR LIGHT DORMANCY HEAT DORMANCY

<input type="checkbox"/> 1-White (Silver Gray)	<input type="checkbox"/> 1-Light Required	<input type="checkbox"/> 1-Susceptible
<input type="checkbox"/> 2-Black (Gray Brown)	<input type="checkbox"/> 2-Light Not Required	<input type="checkbox"/> 2-Not Susceptible
<input type="checkbox"/> 3-Brown (Amber)		

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day old seedling grown under optimal conditions.

☐ SHAPE OF COTYLEDONS: 1-Broad 2-Intermediate 3-Spatulate

☐ SHAPE OF FOURTH LEAF:



☐ LENGTH/WIDTH INDEX OF FOURTH LEAF: LW x 10

<input type="checkbox"/> APICAL MARGIN:	1-Entire	4-Moderately Dentate	7-Lobed
<input type="checkbox"/> BASAL MARGIN:	2-Crenate/Gnawed	5-Coarsely Dentate	8-OTHER (specify)
	3-Finely Dentate	6-Incised	
<input type="checkbox"/> UNDULATION:	1-Flat	2-Slight	3-Medium 4-Marked
<input type="checkbox"/> GREEN COLOR:	1-Yellow Green	3-Medium Green	5-Blue Green 7-Gray Green
	2-Light Green	4-Dark Green	6-Silver Green
ANTHOCYANIN:			
<input type="checkbox"/> DISTRIBUTION:	1-Absent	3-Spotted	5-OTHER (specify)
	2-Margin Only	4-Throughout	
<input type="checkbox"/> CONCENTRATION:	1-Light	2-Moderate	3-Intense
<input type="checkbox"/> ROLLING:	1-Absent	2-Present	
<input type="checkbox"/> CUPPING:	1-Uncupped	2-Slight	3-Markedly
<input type="checkbox"/> REFLEXING:	1-None	2-Apical Margin	3-Lateral Margins

4. MATURE LEAVES (observe harvest-mature outer leaves):

NOTE: Provide color photo of harvest-mature leaves which accurately shows color and margin characteristics.

MARGIN:

<input type="checkbox"/> 1	INCISION DEPTH: <i>(deepest penetration of the margin)</i>	1-Absent/Shallow (Dark Green Boston)	2-Moderate (Vanguard)	3-Deep (Great Lakes 659)
<input type="checkbox"/> 1	INDENTATION: <i>(finest divisions of the margin)</i>	1-Entire (Dark Green Boston)	3-Deeply Dentate (Great Lakes 659)	5-OTHER (specify)
<input type="checkbox"/> 1	UNDULATION OF THE APICAL MARGIN:	1-Absent/Slight (Dark Green Boston)	2-Moderate (Vanguard)	3-Strong (Great Lakes 659)
<input type="checkbox"/> 3	GREEN COLOR:	1-Very Light Green (Bibb)	3-Medium Green (Great Lakes)	5-Very Dark Green
		2-Light Green (Minetto)	4-Dark Green (Vanguard)	6-OTHER
	ANTHOCYANIN (grown at or below 10 C):			
<input type="checkbox"/> 1	DISTRIBUTION:	1-Absent	3-Spotted (Calif. Cream Butter)	5-OTHER (specify)
		2-Margin Only (Big Boston)	4-Throughout (Prize Head)	
<input type="checkbox"/> -	CONCENTRATION:	1-Light (Iceberg)	2-Moderate (Prize Head)	3-Intense (Ruby)
<input type="checkbox"/> 2	SIZE:	1-Small	2-Medium	3-Large
<input type="checkbox"/> 2	GLOSSINESS:	1-Dull (Vanguard)	2-Moderate (Salinas)	3-Glossy (Great Lakes)
<input type="checkbox"/> 2	BLISTERING:	1-Absent/Slight (Salinas)	2-Moderate (Vanguard)	3-Strong (Prize Head)
<input type="checkbox"/> 2	LEAF THICKNESS:	1-Thin	2-Intermediate	3-Thick
<input type="checkbox"/> 1	TRICHOMES:	1-Absent (smooth)	2-Present (spiny)	

5. PLANT (at market stage. Choose a comparison variety appropriate for this type.):

<input type="checkbox"/> 35	SPREAD OF FRAME LEAVES:	<input type="checkbox"/> 37 cm TALL GUZMAN	(specify comparison variety)
<input type="checkbox"/> 35	HEAD DIAMETER (market trimmed with single cap leaf):	<input type="checkbox"/> 37 cm TALL GUZMAN	(specify comparison variety)
<input type="checkbox"/> 4	HEAD SHAPE:	1-Flattened	3-Spherical
		2-Slightly Flattened	4-Elongate
			5-Non-Heading
			6-OTHER
<input type="checkbox"/> 2	HEAD SIZE CLASS:	1-Small	2-Medium
			3-Large
<input type="checkbox"/> 24	HEAD COUNT PER CARTON		
<input type="checkbox"/> 645	HEAD WEIGHT:	<input type="checkbox"/> 627 g TALL GUZMAN	(specify comparison variety)
	g This Variety		
<input type="checkbox"/> 2	HEAD FIRMNESS:	1-Loose	3-Firm
		2-Moderate	4-Very Firm

6. BUTT (bottom of market-trimmed head):

<input type="checkbox"/> 3	SHAPE:	1-Slightly Concave	2-Flat	3-Rounded
<input type="checkbox"/> 2	MIDRIB:	1-Flattened (Salinas)	2-Moderately Raised	3-Prominently Raised (Great Lakes 659)

7. CORE (stem of market-trimmed head):

<input type="checkbox"/> 38	mm Diameter at base of head
<input type="checkbox"/> 91	Ratio of head diameter/core diameter
<input type="checkbox"/> 69	Core height from base of head to apex:
	mm This Variety
<input type="checkbox"/> 49	mm TALL GUZMAN
	(specify comparison variety)

8. BOLTING (Give First Water Date 5/11):

NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

<input type="checkbox"/> 61	Number of days from First Water Date to seed stalk emergence (summer conditions):			
	This Variety			
<input type="checkbox"/> 66	TALL GUZMAN			
	(specify comparison variety)			
<input type="checkbox"/> 3	BOLTING CLASS:	1-Very Slow	3-Medium	5-Very Rapid
		2-Slow	4-Rapid	
<input type="checkbox"/> 76	Height of mature seed stalk:	<input type="checkbox"/> 60 cm TALL GUZMAN	(specify comparison variety)	
	cm This Variety			

31

Spread of Bolter Plant (at widest point):

cm This Variety

28

cm TALL GUZMAN

(specify comparison variety)

1

BOLTER LEAVES:

1-Straight

2-Curved

2

MARGIN:

1-Entire

2-Dentate

2

COLOR:

1-Light Green

2-Medium Green

3-Dark Green

BOLTER HABIT:

1

TERMINAL
INFLORESCENCE:

1-Absent

2-Present

1

LATERAL SHOOTS:
(above head)

1-Absent

2-Present

1

BASAL SIDE SHOOTS: 1-Absent

2-Present

9. MATURITY (earliness of harvest-mature head formation):

NOTE: Complete this section for at least one season.

SEASON	Applic. 1/ # of days	Check 2/ # of days	CHECK VARIETY 3/
Spring	62	65	TALL GUZMAN
Summer	69	69	TALL GUZMAN
Fall	89	89	TALL GUZMAN
Winter			

Give planting date(s), and location(s):

Spring April 1, Salinas Valley CA

Summer JUNE 1, Salinas Valley CA

Fall SEPT 25, Yuma AZ

Winter NOV 15, Yuma AZ

1/ First water date to harvest.

2/ Fill in check variety name on the appropriate line.

10. ADAPTATION:

PRIMARY REGIONS OF ADAPTION (tested and proven adapted):

(0-Not tested

1-Not Adapted

2-Adapted)

2

Southwest (Calif., Ariz. desert)

2

West Coast

0

Northeast

0

Northcentral

0

Southeast

0

OTHER

SEASON:

2

Spring (area

Salinas Valley

2

Fall (area

Yuma AZ

2

Summer (area

Salinas Valley

0

Winter (area

0

GREENHOUSE:

0-Not tested

1-Not Adapted

2-Adapted

3

SOIL TYPE:

1-Mineral

2-Organic

3-Both

11. DISEASES AND STRESS REACTIONS (0=Not tested; 1=Susceptible; 2=Intermediate; 3=Resistant; 4=Highly resistant; 5=Tolerant):

RAD 3/28/06

VIRUS

- ☐ Big Vein
☒ Lettuce Mosaic
☐ Cucumber Mosaic
☐ Broad Bean Wilt
☐ Turnip Mosaic
☐ Beet Western Yellows
☐ Lett. Infectious Yellows
☐ Other Virus _____

FUNGAL/BACTERIAL

- ☐ 3 Corky Root Rot (Pythium Root Rot)
☐ 1 Downy Mildew (Races _____)
☐ 0 Powdery Mildew
☐ 0 Sclerotinia Rot
☐ 0 Bacterial Soft Rot (Pseudomonas spp. & others)
☐ 0 Botrytis (Gray Mold)
☐ OTHER _____

INSECTS

- ☐ 0 Cabbage Loopers
☐ 0 Root Aphids
☐ 0 Green Peach Aphid
☐ Other Insect _____

PHYSIOLOGICAL/STRESS

- ☐ 5 Tipburn
☐ 2 Heat
☐ 0 Drought
☐ 1 Cold
☐ 0 Salt
☐ 0 Brown Rib (Rib Discoloration, Rib Blight)
☐ OTHER _____

POST HARVEST

- ☐ 0 Pink Rib
☐ 0 Russet Spotting
☐ 0 Rusty Brown Discoloration
☐ 0 Internal Rib Necrosis (Blackheart, Gray Rib, Gray Streak)
☐ 0 Brown Stain

12. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

13. COMMENTS:

SUGGESTED CHECK VARIETIES

TYPE

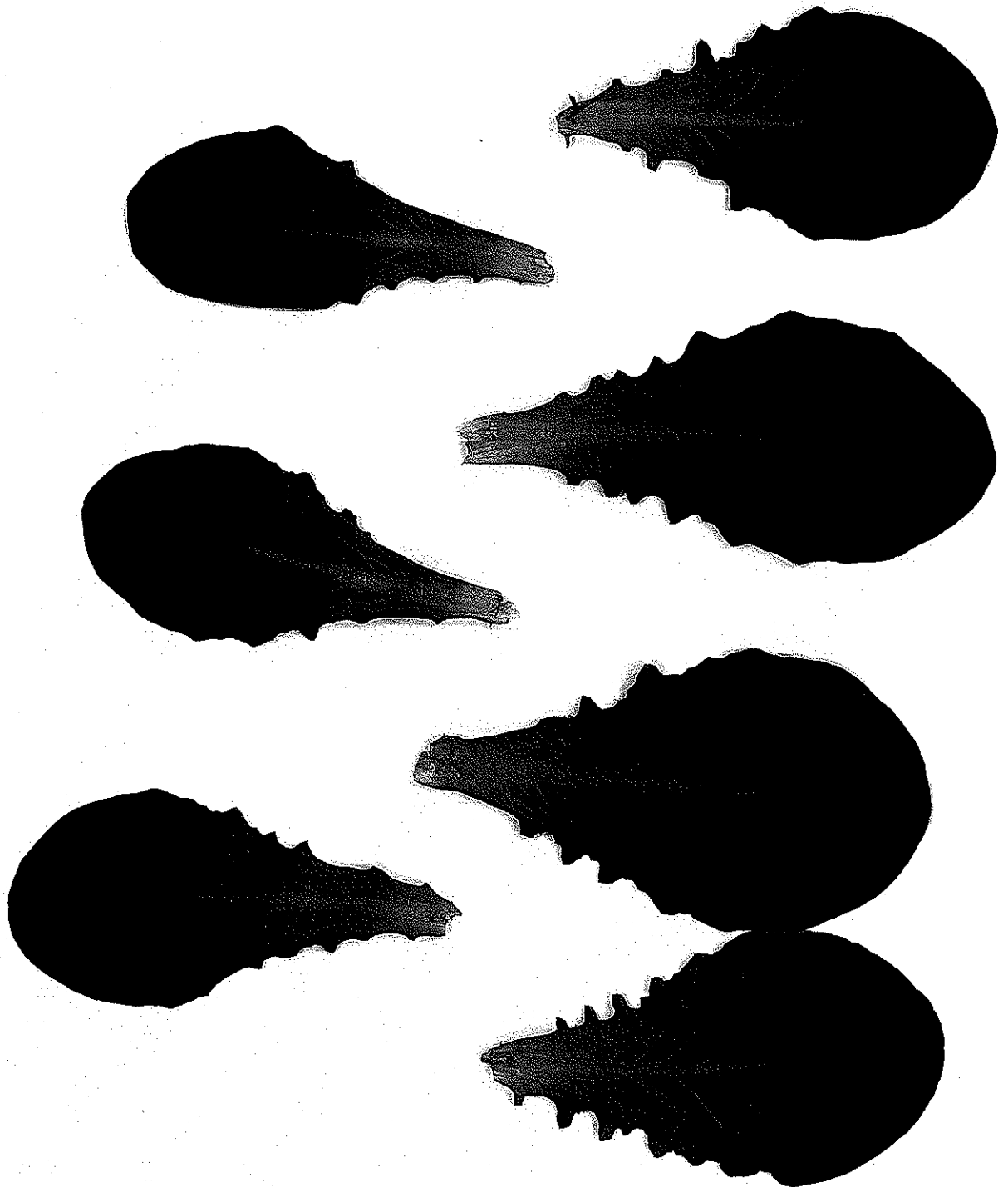
- 1) CUTTING/LEAF
 2) BUTTERHEAD
 3) BIBB
 4) COS, OR ROMAINE
 5) GREAT LAKES GROUP
 6) VANGUARD GROUP
 7) IMPERIAL GROUP
 8) EASTERN GROUP
 9) STEM
 10) LATIN

CHECK VARIETY

SALAD BOWL
 DARK GREEN BOSTON
 BIBB
 PARRIS ISLAND
 GREAT LAKES 659-700
 VANGUARD
 VIVA
 ITHACA
 CELTUCE
 MATCHLESS

PX404

200200113



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Exhibit D

GORILLA is a large, romaine lettuce with excellent tip burn and bolting tolerance. It has also shown field resistance to corky root disease. Its growth is upright with a savoyed appearance and an extremely dense heart. GORILLA's versatility makes it an excellent choice for conventional box, romaine hearts, or salad packs. It fits in the spring Coastal California slot and the fall Arizona slot.

Trial map #: SV001115
 Wet Date: 5/4/00
 Date evald: 7/5/00
 Location: Chualar
 Grower: Francioni Bros
 Ranch: Martin
 Lot: 5B
 Maturity Date:
 1 Gorilla 7/12/00
 2 Tall Guzman 7/12/00

PERFORMANCE INDEX

Comparison of Head Characteristics

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Gorilla	Tall Guzman	Gorilla	Tall Guzman	Gorilla	Tall Guzman	Gorilla	Tall Guzman	Gorilla	Tall Guzman	Gorilla	Tall Guzman	Gorilla	Tall Guzman
1	45	37	45	38	240	230	240	260	5.3	6.8	36	40	440	500
2	37	32	37	60	290	200	290	270	7.8	4.5	36	36	652	486
3	40	32	40	40	290	240	290	270	7.3	6.8	36	40	492	775
4	43	33	43	46	250	210	250	260	5.8	5.7	34	35	650	683
5	37	40	37	50	260	220	260	270	7.0	5.4	39	37	552	382
6	45	33	45	46	260	220	270	290	6.0	6.3	39	38	633	432
7	41	27	41	43	240	220	240	260	5.9	6.0	35	38	517	432
8	40	39	40	42	240	220	270	260	6.8	6.2	32	37	675	541
9	40	35	40	41	280	190	280	250	7.0	6.1	36	39	492	562
10	35	35	35	41	300	200	300	250	8.6	6.1	39	38	506	575
11	36	30	36	39	300	180	310	260	8.6	6.7	37	40	547	579
12	37	37	37	56	230	220	260	260	7.0	4.6	37	40	539	616
13	41	32	41	30	260	220	280	240	6.8	8.0	36	38	670	691
14	37	34	37	49	290	200	290	290	7.8	5.9	36	37	515	496
15	37	35	37	54	290	250	290	280	7.8	5.2	40	35	541	349
16	37	29	37	64	240	250	240	280	6.5	4.4	38	38	640	500
17	40	29	40	54	240	220	260	260	6.5	4.8	37	40	593	463
18	35	32	35	49	260	190	260	250	7.4	5.1	36	39	666	411
19	34	40	34	57	240	200	240	260	7.1	4.6	37	39	531	613
20	39	36	39	36	240	180	270	260	6.9	7.2	37	38	665	510
21	41	33	41	57	270	220	270	250	6.6	4.4	34	33	509	371
22	40	36	41	47	270	210	270	240	6.6	5.1	42	34	444	420
23	35	46	35	20	260	240	270	270	7.7	13.5	36	36	386	506
24	36	40	36	30	260	210	270	260	7.5	8.7	36	37	624	526
Average	38.7	34.7	38.7	45.4	262.5	214.2	269.6	262.5	7.0	6.2	36.7	37.6	552.6	525.8
Stan dev	3.1	4.3	3.1	10.5	21.9	19.5	19.4	13.3	0.8	1.9	2.1	2.0	86.9	107.5
T test	5.82E-04		4.50E-03		2.39E-10		1.47E-01	5.39E-02		1.43E-01			3.47E-01	

PERFORMANCE INDEX

Comparison of Head Characteristics

Trial map #: SV000094

Wet Date: 4/22/00

Date evald: 6/23/00

Location: Green Field

Grower: Bassetti

Ranch:

Lot:

Maturity Date:

1 Gorilla

2 TallGuzmain

6/25/00

6/23/00

Sample #	Core Length (mm)		Heart Length (mm)		Core Diameter (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain
1	65	46	220	220	42	40	250	230	3.8	5.0	32	33	727	893
2	76	60	220	200	40	39	260	260	3.4	4.3	33	33	652	642
3	68	55	220	230	43	38	260	230	3.8	4.2	33	33	627	691
4	50	50	210	240	37	39	260	240	5.2	4.8	34	34	668	621
5	58	47	240	210	34	39	280	250	4.8	5.3	35	35	623	644
6	48	60	200	220	42	30	240	260	5.0	4.3	32	35	580	597
7	60	54	210	220	40	30	260	260	4.3	4.8	33	31	545	703
8	55	52	220	220	37	40	260	260	4.7	5.0	31	34	641	851
9	53	38	190	200	43	38	230	260	4.3	6.8	33	35	697	561
10	45	55	210	180	44	36	250	230	5.6	4.2	33	36	585	554
11	66	42	220	190	43	36	260	240	3.9	5.7	34	33	586	774
12	54	45	220	200	40	37	260	230	4.8	5.1	37	29	844	825
13	60	52	230	210	42	35	270	270	4.5	5.2	35	35	625	467
14	75	45	220	180	42	38	260	250	3.5	5.6	34	36	953	796
15	68	40	240	190	41	38	270	230	4.0	5.8	34	35	623	490
16	57	56	200	220	40	38	230	260	4.0	4.6	36	34	593	415
17	47	45	200	200	38	40	240	230	5.1	5.1	32	34	610	600
18	47	44	210	220	38	40	240	270	5.1	6.1	36	35	548	329
19	47	42	200	230	35	39	230	270	4.9	6.4	33	30	633	529
20	42	50	210	220	39	41	240	250	5.7	5.0	34	31	542	753
21	48	64	220	200	41	39	250	240	5.2	3.8	33	34	469	392
22	67	45	210	200	40	38	250	250	3.7	5.6	34	34	428	601
23	52	38	140	200	38	39	180	240	3.5	6.3	34	29	627	620
24	48	30	180	200	43	35	220	230	4.6	7.7	33	26	475	567
Average	56.5	48.1	210.0	208.3	40.1	37.6	247.9	247.5	4.5	5.3	33.7	33.1	620.9	621.5
Stan dev	9.8	8.1	20.4	15.8	2.7	2.8	20.6	14.5	0.7	0.9	1.4	2.5	111.3	146.6
T test	2.25E-03		7.53E-01		2.72E-03		9.36E-01		1.36E-03		3.27E-01		9.88E-01	

Trial map #: RYM00128 Location: Roll Ranch/lot: 4A Date evald: 3/27/01
 Wet Date: 12/9/00 Grower: Amigo Commercial Vi Clemente Eval by: dgalmj

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla	TallGuzmain	Gorilla
1	40	36	80	130	255	285	310	310	3.9	2.1	40	31	788	1085
2	40	41	70	150	250	280	310	310	4.4	2.1	43	31	866	570
3	40	49	85	144	255	285	340	300	4.0	2.1	43	30	860	720
4	40	40	76	110	270	275	310	325	4.1	3.0	39	32	1012	725
5	40	37	80	220	255	275	310	330	3.9	1.5	40	33	765	1089
6	35	45	95	170	275	310	310	320	3.3	1.9	40	32	763	655
7	39	40	82	150	260	290	330	350	4.0	2.3	39	35	708	842
8	38	40	75	130	250	245	300	300	4.0	2.3	44	30	746	985
9	40	41	79	120	255	165	310	320	3.9	2.7	43	32	800	768
10	39	40	80	125	240	275	300	320	3.8	2.6	43	32	669	564
11	37	40	70	135	265	280	310	320	4.4	2.4	43	32	796	669
12	40	45	70	120	235	260	310	280	4.4	2.3	39	28	899	766
13	39	36	80	120	260	270	310	230	3.9	1.9	36	23	1037	1045
14	43	42	80	150	270	310	330	330	4.1	2.2	44	33	825	712
15	42	40	70	150	250	285	310	320	4.4	2.1	44	32	907	875
16	40	43	90	120	255	270	330	300	3.7	2.5	44	30	1061	560
17	40	40	69	175	260	305	320	330	4.6	1.9	45	33	1381	881
18	39	45	60	135	255	165	325	320	5.4	2.4	39	32	700	830
19	39	39	80	110	270	275	335	320	4.2	2.9	45	32	936	755
20	40	40	80	125	255	285	305	330	3.8	2.6	39	33	725	1005
21	38	45	60	125	260	270	320	320	5.3	2.6	45	32	948	828
22	40	42	40	120	265	280	320	310	8.0	2.6	44	32	936	995
23	40	44	80	155	255	285	310	310	3.9	2.0	40	31	961	1420
24	40	45	95	150	245	275	300	325	3.2	2.2	40	32	920	905
Average	39.5	41.5	76.1	140.0	256.9	270.8	315.2	313.8	4.3	2.3	41.7	31.4	875.4	843.7
Stan dev	1.5	3.2	11.7	24.7	9.5	35.6	11.3	22.6	0.9	0.3	2.6	2.2	154.1	201.4
T test	9.16E-03		4.56E-15		6.99E-02		7.78E-01		1.36E-12		3.45E-19		5.44E-01	

Trial map #: SYM00385 Location: North Yuma Ranch/lot: Cocopah 14 Date eval'd 1/12/01
 Wet Date: 10/15/00 Grower: Mellon/D'Arr Commercial V; Green Towers Eval by: dg/jt

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla	Tall Guzmanine	Gorilla
1	34	38	31	45	235	260	280	340	9.0	7.6	30	38	528	540
2	37	36	30	49	230	330	280	355	9.3	7.2	32	37	610	499
3	36	35	22	50	255	260	310	310	14.1	6.2	32	38	337	370
4	33	37	30	37	260	295	310	330	10.3	8.9	34	35	621	746
5	32	35	20	41	260	285	300	320	15.0	7.8	35	36	444	652
6	33	33	25	40	240	280	300	330	12.0	8.3	36	37	479	593
7	36	37	32	40	260	275	330	310	10.3	7.8	38	36	538	583
8	35	32	30	46	260	285	300	340	10.0	7.4	35	34	355	599
9	31	34	30	40	295	230	290	280	9.7	7.0	38	36	504	500
10	34	42	25	40	280	250	310	340	12.4	8.5	38	38	470	493
11	38	40	35	35	250	275	320	330	9.1	9.4	34	35	452	582
12	35	30	35	35	260	260	310	335	8.9	9.6	37	42	374	396
13	30	34	32	46	260	270	290	310	9.1	6.7	32	41	343	550
14	40	35	20	44	260	255	320	300	16.0	6.8	37	34	440	464
15	36	32	20	45	230	265	240	300	12.0	6.7	36	35	606	419
16	36	36	20	45	240	275	290	330	14.5	7.3	39	38	432	625
17	34	38	35	51	240	265	300	355	8.6	7.0	38	38	686	608
18	32	35	20	25	220	260	260	315	13.0	12.6	38	43	352	673
19	30	34	25	55	260	310	290	360	11.6	6.5	37	35	553	590
20	38	30	21	30	230	265	270	320	12.9	10.7	35	34	330	531
21	35	37	26	30	280	235	310	320	11.9	10.7	37	37	576	535
22	35	40	26	30	230	280	270	320	10.4	10.7	38	42	606	787
23	30	35	25	36	245	295	290	320	11.6	8.9	38	44	389	636
24	30	40	20	30	170	300	230	310	11.5	10.3	38	35	618	535
Average	34.2	35.6	26.5	40.2	247.9	273.3	291.7	324.2	11.4	8.4	35.9	37.4	486.0	562.8
Stan dev	2.8	3.1	5.4	7.8	24.7	22.6	24.4	19.0	2.1	1.7	2.5	3.0	107.9	100.1
T test	9.38E-02		5.72E-09		5.36E-04		5.38E-06		1.52E-06		6.28E-02		1.40E-02	

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PERFORMANCE INDEX

Comparison of Head Characteristics

Trial map #: SV000115
 Wet Date: 5/4/00
 Date evald: 7/5/00

Location: Chualar
 Grower: Francioni Bros

Ranch: Martin
 Lot: 5B

Maturity Date:
 1 Gorilla 7/12/00
 2 Green Towers 7/12/00

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers
1	45	34	45	40	240	230	240	260	5.3	6.5	36	38	440	327
2	37	37	37	35	290	190	290	230	7.8	6.6	36	37	652	439
3	40	35	40	43	290	200	290	230	7.3	5.3	36	38	492	366
4	43	37	43	48	250	220	250	260	5.8	5.4	34	38	650	395
5	37	32	37	45	260	210	260	260	7.0	5.8	39	39	552	360
6	45	32	45	30	260	230	270	270	6.0	9.0	39	38	417	442
7	41	34	41	60	240	230	240	280	5.9	4.7	35	39	517	560
8	40	36	40	56	240	240	240	270	6.8	4.8	32	36	675	274
9	40	32	40	37	280	240	280	270	7.0	7.3	36	37	492	537
10	35	32	35	46	300	230	300	260	8.6	5.7	39	37	506	355
11	36	35	36	50	300	250	310	280	8.6	5.6	37	41	547	378
12	37	36	37	57	230	230	260	280	7.0	4.9	37	39	539	354
13	41		41		260		280		6.8		36		670	
14	37		37		290		290		7.8		36		515	
15	37		37		290		290		7.8		40		541	
16	37		37		240		240		6.5		38		640	
17	40		40		240		260		6.5		37		593	
18	35		35		260		260		7.4		36		666	
19	34		34		240		240		7.1		37		531	
20	39		39		240		270		6.9		37		665	
21	41		41		270		270		6.6		34		509	
22	40		41		270		270		6.6		42		444	
23	35		35		260		270		7.7		36		386	
24	36		36		260		270		7.5		36		624	
Average	38.7	34.3	38.7	45.6	262.5	225.0	269.6	262.5	7.0	6.0	36.7	38.1	552.6	398.9
Stan dev	3.1	2.0	3.1	9.2	21.9	17.3	19.4	17.1	0.8	1.2	2.1	1.3	86.9	83.3
T test	9.24E-05		2.10E-03		1.06E-05		2.92E-01		4.41E-03		4.60E-02		1.38E-05	

Trial map #: RYM00128 Location: Roll 4A Date evald 3/27/01
 Wet Date: 12/9/00 Grower: Amigo Commercial Var: Clemente Eval by: dgachmjt

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla
1	38	36	130	150	280	285	310	360	2.8	12.0	43	31	1033	1085
2	44	41	130	150	300	280	310	360	2.8	2.1	44	31	685	570
3	45	49	135	144	290	285	300	340	2.5	2.1	47	30	559	720
4	45	40	120	110	280	275	310	325	2.6	3.0	47	32	751	725
5	45	37	105	220	275	275	360	330	3.4	1.5	45	33	863	1089
6	45	45	135	170	280	310	350	320	2.6	1.9	47	32	860	655
7	41	40	100	150	290	290	335	350	3.4	2.3	44	35	1043	842
8	44	40	130	130	275	245	300	300	2.5	2.3	45	30	833	985
9	40	41	90	120	245	165	310	320	3.4	2.7	43	32	367	768
10	45	40	135	125	285	275	370	320	2.7	2.6	47	32	905	564
11	41	40	125	135	270	280	335	320	2.7	2.4	42	32	875	669
12	46	45	95	120	290	260	360	280	3.8	2.3	40	28	1160	766
13	43	36	120	120	265	270	320	230	2.7	1.9	42	23	563	1045
14	45	42	105	150	270	310	330	330	3.1	2.2	45	33	1150	712
15	42	40	120	150	275	285	320	320	2.7	2.1	43	32	949	875
16	38	43	120	120	280	270	335	300	2.8	2.5	44	30	657	560
17	45	40	120	175	275	305	330	330	2.8	1.9	44	33	744	881
18	45	45	105	135	255	165	330	320	3.1	2.4	42	32	640	830
19	41	39	110	110	265	275	325	320	3.0	2.9	43	32	1005	755
20	43	40	145	125	295	285	320	330	2.2	2.6	47	33	1015	1005
21	35	45	100	125	245	270	300	320	3.0	2.6	45	32	812	828
22	43	42	115	120	265	280	295	310	2.6	2.6	45	32	978	995
23	40	44	90	155	265	285	330	310	3.7	2.0	41	31	812	1420
24	44	45	95	150	275	275	325	325	3.4	2.2	43	32	786	905
Average	42.6	41.5	115.6	140.0	274.6	270.8	332.5	313.8	2.9	2.7	44.1	31.4	835.2	843.7
Stan dev	2.8	3.2	15.9	24.7	14.1	35.6	19.7	22.6	0.4	2.0	2.0	2.2	194.5	201.4
T test	1.86E-01		1.87E-04		6.33E-01		3.60E-03		6.03E-01		5.67E-25		8.82E-01	

200200113

PERFORMANCE INDEX
Comparison of Head Characteristics

Trial map #: SV00094
 Wet Date: 4/22/00
 Date evald: 6/23/00

Location: Green Field
 Grower: Bassetti

Ranch:
 Lot:

Maturity Date:
 1 Gorilla 6/25/00
 2 GreenTowers 6/25/00

12
 4

Sample #	Core Length (mm)		Heart Length (mm)		Core Diameter (mm)		Head length (mm)		Head length: Core Length		Frame diam (cm)		Head wt. (g)	
	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers	Gorilla	GreenTowers
1	65	53	220	210	42	40	250	260	3.8	4.9	32	32	727	793
2	76	45	220	210	40	38	260	260	3.4	5.8	33	34	652	713
3	68	56	220	230	43	35	260	280	3.8	5.0	33	33	627	732
4	50	77	210	240	37	40	260	290	5.2	3.8	34	32	668	685
5	58	75	240	250	34	43	280	290	4.8	3.9	35	33	623	638
6	48	70	200	250	42	35	240	290	5.0	4.1	32	32	580	704
7	60	72	210	210	40	38	260	240	4.3	3.3	33	35	545	635
8	55	58	220	210	37	43	260	250	4.7	4.3	31	36	641	888
9	53	45	190	200	43	44	230	240	4.3	5.3	33	33	697	796
10	45	48	210	230	44	42	250	270	5.6	5.6	33	32	585	654
11	66	45	220	180	43	42	260	230	3.9	5.1	34	34	586	805
12	54	47	220	210	40	43	260	260	4.8	5.5	37	33	844	488
13	60	54	230	210	42	40	270	250	4.5	4.6	35	33	625	509
14	75	82	220	260	42	42	260	290	3.5	3.5	34	36	953	796
15	68	48	240	230	41	40	270	270	4.0	5.6	34	34	623	558
16	57	58	200	160	40	40	230	230	4.0	4.0	36	32	593	750
17	47	38	200	180	38	40	240	240	5.1	6.3	32	33	610	725
18	47	40	210	240	38	40	240	280	5.1	7.0	36	32	548	760
19	47	55	200	230	35	40	230	270	4.9	4.9	33	33	633	570
20	42	60	210	240	39	40	240	270	5.7	4.5	34	32	542	637
21	48	70	220	240	41	40	250	280	5.2	4.0	33	35	469	535
22	67	43	210	240	40	40	250	270	3.7	6.3	34	33	428	405
23	52	50	140	220	38	41	180	260	3.5	5.2	34	35	627	607
24	48	53	180	210	43	45	220	250	4.6	4.7	33	35	475	589
Average	56.5	55.9	210.0	220.4	40.1	40.0	247.9	263.3	4.5	4.9	33.7	33.4	620.9	665.5
Stan dev	9.8	12.4	20.4	24.4	2.7	2.9	20.6	19.0	0.7	0.9	1.4	1.3	111.3	118.1
T test	8.57E-01		1.16E-01		9.59E-01		9.92E-03		9.25E-02		5.28E-01		1.85E-01	

200200113

Trial map #: SYM00385 Location: North Yuma Ranch/lot: Cocopah 14 Date evald: 1/12/01
 Wet Date: 10/15/00 Grower: Mellon/D/Arr Commercial V: Green Towers Eval by: dg/jt

Sample #	Core Diameter (mm)		Core Length (mm)		Heart Length (mm)		Head length (mm)		Head length:Core Length		Frame diam (cm)		Head wt. (g)	
	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla	Green Towers	Gorilla
1	35	38	46	45	290	260	350	340	7.6	7.6	35	38	680	540
2	35	36	40	49	255	330	315	355	7.9	7.2	33	37	531	499
3	38	35	35	50	265	260	310	310	8.9	6.2	35	38	489	370
4	40	37	30	37	275	295	360	330	12.0	8.9	37	35	833	746
5	40	35	55	41	275	285	340	320	6.2	7.8	34	36	690	652
6	30	33	45	40	310	280	335	330	7.4	8.3	33	37	615	593
7	30	37	40	40	305	275	360	310	9.0	7.8	37	36	426	583
8	32	32	32	46	260	285	335	340	10.5	7.4	35	34	597	599
9	35	34	32	40	280	230	340	280	10.6	7.0	39	36	730	500
10	36	42	33	40	265	250	340	340	10.3	8.5	37	38	733	493
11	40	40	45	35	285	275	375	330	8.3	9.4	37	35	706	582
12	38	30	39	35	290	260	350	335	9.0	9.6	34	42	327	396
13	40	34	50	46	270	270	330	310	6.6	6.7	37	41	436	550
14	30	35	35	44	270	255	360	300	10.3	6.8	42	34	738	464
15	40	32	35	45	230	265	310	300	8.9	6.7	36	35	555	419
16	40	36	35	45	255	275	310	330	8.9	7.3	35	38	515	625
17	37	38	25	51	250	265	320	355	12.8	7.0	36	38	742	608
18	36	35	40	25	240	260	320	315	8.0	12.6	39	43	564	673
19	40	34	32	55	255	310	310	360	9.7	6.5	39	35	544	590
20	38	30	40	30	240	265	310	320	7.8	10.7	43	34	737	531
21	35	37	30	30	245	235	285	320	9.5	10.7	36	37	631	535
22	40	40	29	30	240	280	300	320	10.3	10.7	38	42	522	787
23	36	35	35	36	270	295	325	320	9.3	8.9	38	44	358	636
24	40	40	30	30	250	300	300	310	10.0	10.3	35	35	664	535
Average	36.7	35.6	37.0	40.2	265.4	273.3	328.8	324.2	9.2	8.4	36.7	37.4	598.5	562.8
Stan dev	3.4	3.1	7.2	7.8	20.9	22.6	22.9	19.0	1.6	1.7	2.5	3.0	132.7	100.1
T test	2.58E-01		1.46E-01		2.14E-01		4.55E-01		9.70E-02		3.49E-01		2.98E-01	

Trialing Protocol for Intellectual Property Protection.

I. Set Up

1. Parental lines and competing varieties are identified.
2. Primary slots are identified.
3. Necessary accession lines are located and purchased/received from seed dealers or growers.
4. All varieties are assigned a number to maintain integrity, and anonymity.
5. Trials are set up in the Progeny warehouse with all necessary varieties. Variety arrangement for trial is diagramed.

II. Planting

1. Commercial plantings are located by contacting commercial growers during the planting slot recommended for the variety.
2. Field is located during commercial planting, and the necessary rows and area is marked off by a Progeny employee with proper training.
3. Varieties are planted according to diagram, in 100 ft. ranges.
4. All varieties are planted in same manner, to mimic the planting of the commercial variety as closely as possible.
5. A trial map is drawn diagramming the trial, the trial location in the field, and directions to the field.

III. Maintenance

1. All varieties are treated identically. The grower handles all watering, fertilization, and pest control, as if it was no different from the commercial field it is grown with.
2. Thinning of the trial is done by a crew contracted by the commercial grower.

IV. Evaluation

1. Evaluations are done as near to the time of the commercial harvest as possible by knowledgeable Progeny employees.
2. The evaluation is conducted "blindly". The evaluator(s) do not have the key to the trial at the time of evaluation.
3. 24 heads of each variety are evaluated.
 - a. The frame diameter of 24 random plants are measured to the nearest cm.
 - b. 24 mature heads of each variety are cut to the cap leaf.
 - c. The heads are carried to an adequate work station
 - d. The following measurements are then conducted and recorded:
 1. Each head is weighed to the nearest gram.
 2. The core diameter of each head is measured to the nearest mm.
 3. The heads are then sliced in to halves, discarding 1 half.
 4. The core lengths (from the cut stem to the core tip) are measured to the nearest mm.
 5. The head length (from the cut stem to the cap leaf) is measured to the nearest mm.
 6. The head diameter (at its widest point) is measured to the nearest mm.
 7. The ideal maturity or harvest date is then estimated based on the solidity of the head, the core length and any other physiological characteristics present.
 8. The leaf color is documented using the Munsell Color Charts for Plant Tissue.
 - e. From these measurements, we then use an Excell program to calculate the averages, the standard deviations and the T-Tests for the compared varieties.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICEEXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) PROGENY ADVANCED GENETICS, INC.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER PX 404	3. VARIETY NAME GORILLA
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 1536 B MOFFETT ST SALINAS CA 93905	5. TELEPHONE (include area code) 831-751-6030	6. FAX (include area code) 831-751-6032
7. PVPO NUMBER 200200113		
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
10. Is the applicant the original owner?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, please answer one of the following:
a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country
b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country
11. Additional explanation on ownership (if needed, use reverse for extra space):	

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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